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EXAMINER

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/000,254  
Filing Date: November 15, 2001  
Appellant(s): HANSEN ET AL.

**MAILED**  
NOV 13 2004  
**GROUP 1700**

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Mark A. Litman  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed August 26, 2004.

**(1) *Real Party in Interest***

A statement identifying the real party in interest is contained in the brief.

**(2) *Related Appeals and Interferences***

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

**(3) *Status of Claims***

The statement of the status of the claims contained in the brief is correct.

**(4) *Status of Amendments After Final***

The appellant's statement of the status of amendments after final rejection contained in the brief is incorrect.

The amendment after final rejection filed on June 30, 2004 has been entered.

**(5) *Summary of Invention***

The summary of invention contained in the brief is correct.

**(6) *Issues***

The appellant's statement of the issues in the brief is correct.

**(7) Grouping of Claims**

Appellant's brief includes a statement that the following groups of claims do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8):

Claims 1-4, 7-10 and 18

Claims 6, 19 and 20

**(8) Claims Appealed**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(9) Prior Art of Record**

3,920,122	KOEHLINGER et al.	11-1975
5,573,621	BOREALI	11-1996
3,565,750	EVANS	2-1971
6,592,693	NEDBLAKE	11-2003
6,571,983	SCHUMMANN et al.	11-2003
WO 00/07883	ADVACNED LABEL SYSTEMS, INC.	2-2000
WO 00/30963	LTS LOHMANN THERAPIE-SYSTEMS AG	6-2000

"Controlling costs challenge label stock, liner suppliers," Paper, Film & Foil Converters, January 1995. Retrieved from the Internet: [URL:http://pffc-online.com/ar/paper\\_controlling\\_costs\\_challenge/index.htm](http://pffc-online.com/ar/paper_controlling_costs_challenge/index.htm)

**(10) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

(1)

Claims 1-4, 7-10 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 00/07883 in view of WO 00/30963, Koehlinger et al. 3,920,122 and Boreali 5,573,621, and further in view of Evans 3,565,750 and the "Controlling costs challenge label stock, liner suppliers" article.

WO 00/07883 discloses a method of applying linerless labels comprising: providing prerolled linerless labels by providing a stream of linerless labels off a manufacturing line, partially severing individual labels on the continuous sheets by a die cutter and anvil roller, applying the continuous sheet with severed labels to a temporary, reusable support liner and rolling the label/support composite; associating the source of precut linerless labels on the roll of reusable support liner to a lined label applicator so that a composite of reusable, temporary liner sheet and cut linerless labels is fed to the lined applicator where lined label is normally directed; removing the cut linerless label from the liner sheet and applying to a substrate; and after removal of the label, winding the liner sheet into a roll. The roll is fed to an the applicator which operates by bending the linerless label on the liner to partially remove at least a part of an edge of the label from the liner, having the lifted edge placed into contact with a surface to which the label is to be applied and attaching the label to the surface. Printing of the labels may be done during or after manufacture of the linerless label stock, before or after cutting of the stock or before application of the stock to the support liner (pgs. 5, 11-21). WO '883 does not specifically

disclose that the partially severed linerless labels have a border defined by a micro-bridged cut along the border or disclose that the liner sheet has a thickness less than 0.032 mm (1.26 mil).

WO 00/30963 teaches that for dispensing flat forms such as labels from a web-like starting material, dispensing problems of freeing the labels from the remaining punch material (lattice stripping) are avoided by punching the outer contour of the label from the web-like starting material such that at least one point between the label and the rest of the material is not punched through. The contour of the label is not punched completely from the web-like material, but instead at least one point or just a few points of the contour are not punched, forming tiny bridges between the label and the remains of the web-like material, which bridges function to fix the labels at their position within the web-like material until dispensed. The number and dimensions of the bridges depend on the material properties of the web-like material (as described in US equivalent Schumann et al. 6,571,983, col. 1, line 4 – col. 3, line 38).

Koehlinger et al. teach that the number and dimensions of bridges that are used to support labels on web remnant are dependent upon the nature of the label web material, should provide enough support so that the labels do not fall from the web remnant prior to the time they reach the application stations and be limited in number as much as possible for appearance purposes. Koehlinger et al. teach using bridges of width of 0.015 inches to 0.045 inches (col. 5, line 52 – col. 6, line 68).

Boreali teaches that ties for connecting linerless labels to matrix preferably have a width of 0.0018-0.030 inches (col. 3, lines 64-66).

Evans 3,565,750 teaches that polyolefin film-based low-release liner for temporarily supporting and covering pressure sensitive adhesive carried by a sheet or other article can have thickness of 1-4 mils (col. 1, lines 29-35, col. 2, line 70 – col. 3, line 6).

The “Controlling costs challenge label stock, liner suppliers” article teaches that one of the biggest trends in labels and liners is to use thinner substrate to reduce costs and satisfy environmental need for source reduction while maintaining or improving performance and production levels. The article teaches that thicknesses are going to 1 and 1½ mil.

It would have been obvious to one of ordinary skill in the art to have modified the method of WO ‘883 for applying linerless labels by providing the continuous sheet of partially severed linerless labels on the temporary liner as labels connected to the continuous sheet by one or a few tiny bridges, as taught by WO ‘963, to avoid the problems with dispensing labels from a web-like starting material. By providing one or a few punched tiny bridges to connect the linerless labels to the remnant (matrix) of the continuous linerless label sheet, linerless labels having a border defined by a bridges cut along the border are provided on the temporary liner, as claimed.

Providing the bridges as micro-bridges would have been obvious to one of ordinary skill in the art, as WO ‘0963 teaches that the number and dimensions of the bridges depend on the material properties of the web-like material, and Koehlinger et al. teach that the number and dimensions of bridges that are used to support labels on web remnant are dependent upon the nature of the label web material and should provide enough support so that the labels do not fall from the web remnant prior to the time they reach the application stations and can be of widths of 0.015 inches to 0.045 inches, while Boreali teaches that ties (bridges) for connecting linerless

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labels to matrix preferably have a width of 0.0018-0.030 inches. By providing bridges of widths as suggested by Koehlinger et al. and Boreali, micro-bridges are provided as claimed which each comprise not more than 3% of the border of a label, as claimed in Claim 2. Providing the bridges to make up less than 10% of the total border of each label, as claimed in Claim 2, would have been obvious to one of ordinary skill in the art, as Koehlinger teach that the number of bridges should be limited in number as much as possible for appearance purposes.

By providing continuous sheet having micro-bridged labels on the temporary liner and removing the labels from the composite of continuous sheet/liner for application to a substrate, matrix is obviously left on the temporary liner when the labels are removed from the liner, as claimed in Claim 3.

It would have been obvious to one of ordinary skill in the art to have further modified the method of WO '883 by providing the support liner as a polymer film of thickness as low as 1 mil (0.025 mm), as taught by Evans, as release liner that can be used to temporarily support and cover pressure sensitive adhesive carried by a sheet or other article and, as taught by the "Controlling costs..." article, as thickness being used for labels and liners to reduce costs and satisfy environmental need for source reduction while maintaining or improving performance and production levels. The use a polymer film release liner of thickness as low as 0.025 mm would have been obvious to one of ordinary skill in the art to reduce costs while still providing a liner able to temporarily support pressure sensitive adhesive carrying material such as labels, as taught by Evans and the "Controlling costs..." article.



(2)

Claims 6, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claim 5 and 18 above, and further in view of Nedblake 6,592,693.

WO '883 discloses that printing of the labels may be done during or after manufacture of the linerless label stock, before or after cutting of the stock or before application of the stock to the support liner. The references do not disclose providing the polymer release liner of less than 0.025 mm (0.98 mil) in thickness.

Nedblake teaches that in making a label bearing web of labels on a liner, low cost, lightweight liners can be used as opposed to heavier webs typically required in label die cutting systems if the label web is cut while separated from the liner. Nedblake teaches that liner webs on the order of 0.75 mil (0.019 mm) can be used as compared to conventional liner webs of thickness of 2-3 mils, which represents a considerable material savings (col. 2, lines 54-57, col. 4, lines 30-36).

It would have been obvious to one of ordinary skill in the art to have modified the method of the references as combined by providing the polymer release liner of thickness on the order of 0.75 mil (0.019 mm), as taught by Nedblake, as liner web that can be used when the label web is cut while separated from the liner web and to use low cost, lightweight liner as opposed to heavier liner which results in considerable material savings.

**(11) Response to Argument**

(1)

Appellant argues that there is no basis provided on the record for using any liner with a linerless label; argues that the concept of enabling a lined label applicator to accept linerless label sheet for application is not shown except by modification of WO 00/07883; argues that WO 00/07883 does not teach border cutting before association with a liner but only shows cutting and separating linerless label from the matrix and then applying individual labels to a liner; argues that there is no suggestion in the combination of claims to forming a border with microbridging; argues that there is no suggestion of the use of precut microbridged labels with ultrathin liner; argues that there is no recognition of the use of ultrathin liners in high speed applications by the use of microbridging to stabilize the combination of liner and labels. Appellant argues that WO 00/30963 and Koehlinger et al. 3,929,122 do not use thin liner material and argues that WO 00/30963 cuts that label while it is on the temporary carrier. Appellant argues that the "Controlling costs challenge label stock, liner suppliers" article is not a technical disclosure enabling practice of the technology but merely suggests a direction of research.

As to the arguments that there is no basis provided on the record for using any liner with a linerless label and that the concept of enabling a lined label applicator to accept linerless label sheet for application is not shown except by modification of WO 00/07883, WO 00/07883 clearly discloses a method and apparatus for applying linerless labels using a conventional lined label applicator. According to the reference, linerless labels are first provided on a liner for providing to an existing lined label applicator. The essential concept of the WO 00/07883

reference is directed to enabling a lined label applicator to accept linerless label sheet for application for applying linerless labels to a liner.

With respect to the argument that WO 00/07883 does not teach border cutting before association with a liner but only shows cutting and separating linerless label from its matrix and applying individual labels to a liner, the reference does disclose this method but also discloses a number of other methods of providing linerless labels on a liner. One useful method disclosed by the reference is to partially sever individual labels on a continuous sheet (i.e. linerless label stock), apply the continuous sheet with its partially severed labels to a temporary, reusable support (i.e. liner) and then rolling the label/support composite for feeding into a conventional label applicator (pg. 11, lines 1-7, line 30 – pg. 12, line 4). Thus the disclosure of the reference is not limited to separating cut linerless labels from its matrix before applying labels to a liner but also suggests applying a continuous linerless label stock sheet of partially severed linerless labels to a liner. Thus linerless labels can be provided to a liner while partially severed from but still connected to its continuous linerless label sheet. WO 00/07883 does not, however, directly mention using microbridges to connect the partially severed linerless labels to its continuous linerless label sheet.

WO 00/30963 is pertinent to how to provide the partially severed labels still connected on a continuous label sheet. WO 00/30963 teaches that to provide labels positioned and fixed within its web-like starting material until dispensing (i.e. application), the contour of the label is not punched completely from the web-like material, but instead at least one point or just a few points of the contour are not punched, forming tiny bridges between the label and the remains of the web-like material. The Examiner's position is that it would have been obvious to one of ordinary

skill in the to have partially severed the linerless labels in the method of WO 00/07883 such that they are connected to the continuous sheet by one or a few tiny bridges, as suggested by the WO 00/30963 reference, to fix the labels within its continuous label sheet yet avoid the problems with dispensing the labels from a web-like starting material during label application. By providing one or a few punched tiny bridges to connect the linerless labels to its continuous linerless label sheet, linerless labels having a border defined by a bridges cut along the border are provided on the temporary liner, as claimed.

Koehlinger et al. and Boreali are pertinent to the dimensions of such bridges used to connect labels to its continuous web or matrix. The references disclose dimensions of bridges that are similar to that as described in the present specification for microbridges and thus partially severing the continuous linerless label sheet to form "microbridges" between the labels and the continuous sheet would have been obvious to one of ordinary skill in the art. While the references WO 00/30963 and Koehlinger et al. 3,929,122 do not mention the use liner of thickness less than 0.032 mm and WO 00/30963 border cuts that label while it is on the liner, the references are still pertinent for their teachings of how to provide a label partially severed from but still connected to its continuous web, their pertinent teaching being the use of tiny bridges to connect a label to continuous web. The Examiner's position is that these teachings of the references would be pertinent to how to partially sever but still maintain linerless labels connected to a continuous linerless label sheet before subsequent laminating of the continuous linerless label sheet to liner, as disclosed by WO 00/07883.

Appellant argues that the “Controlling costs challenge label stock, liner suppliers” article is not a technical disclosure enabling practice of the technology but merely suggests a direction of research. The Examiner’s position is that the teachings of Evans and the article would have suggested to one of ordinary skill in the art to use a liner of thickness within the range of less than 0.032 mm (1.26 mil), as claimed, for laminating to the linerless label sheet in the method of WO 00/07883.

Evans 3,565,750 teaches that polyolefin film-based low-release liner for temporarily supporting and covering pressure sensitive adhesive carried by a sheet or other article can have thickness of 1-4 mils (col. 1, lines 29-35, col. 2, line 70 – col. 3, line 6). Evans even teaches that such liner can be laminated to label stock (col. 5, lines 68-71). The “Controlling costs challenge label stock, liner suppliers” article teaches that one of the biggest trends in labels and liners is to use thinner substrate to reduce costs and satisfy environmental need for source reduction while maintaining or improving performance and production levels. The article teaches that thicknesses are going to 1 and 1½ mil.

The Examiner’s position is that it would have been obvious to one of ordinary skill in the art to have provided the support liner in the method of WO 00/07883 as a polymer film of thickness as low as 1 mil (0.025 mm and thus less than the claimed 0.032 mm thickness), as taught by Evans, as release liner that can be used to temporarily support and cover pressure sensitive adhesive carried by a sheet or other article and, as taught by the “Controlling costs...” article, as thickness being suggested for use for liners to reduce costs and satisfy environmental need for source reduction while maintaining or improving performance and production levels. Not only is liner of thickness of 1 mil (0.025 mm) known in the art for laminating to pressure

sensitive adhesive sheet such as label stock, as suggested by Evans, but the motivation of using as thin a liner as possible is clearly provided by the "Controlling..." article, the motivation being to reduce costs and satisfy environmental need for source reduction while maintaining or improving performance and production levels. The combination of the two references suggests using liner as thin as 1 mil (0.025 mm).

Thus, the combination of references as combined teach or suggest to modify the method of WO 00/07883 by partially severing the linerless labels such that they are as connected to a continuous linerless label sheet by microbridges and laminating such continuous linerless label sheet to a liner of thickness of 1 mil (0.025 mm) for providing to a lined label applicator, and thus suggest the method as claimed in Claim 1.

(2)

Appellant argues that although Nedblake 6,592,693 teaches the use of thinner liners, this is not done with linerless label and is not done with microbridge cutting but uses laser instead of microbridging.

The Nedblake reference is pertinent to Claims 6, 19 and 20 not because of the specifics of its laser cutting method of providing labels on a thin liner, but because of its clear suggestion that is known in the art of making label bearing webs of labels on a liner to use liner as thin as 0.75 mil (0.019 mm, and thus less than 0.025 mm as claimed in Claim 6) which represents a considerable material savings compared to conventional liner webs of thickness of 2-3 mils. Although Nedblake uses laser cutting of the label web instead of microbridging, the reference

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does however teach the same or similar solution as Appellant as to how to cut a label web without cutting the liner when using a thin liner, the solution being to cut labels in the label web while it is separate from a liner which allows the use of lower cost, thinner liner. The Examiner's position is that it would have been obvious to one of ordinary skill in the art to have modified the method of the references as combined by providing the polymer release liner of thickness on the order of 0.75 mil (0.019 mm), as thus less than 0.025 mm as claimed in Claims 6 and 19, as taught by Nedblake, for further material savings.

(3)

Appellant argues that the Declaration of Mr. Raymond Pace provides evidence that one of knowledge in the art is unaware of any products that provide thin (less than 0.5 mil) liners with any label products and particularly not with linerless label products.

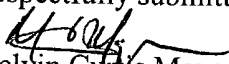
The Examiner's position in that the Declaration of Mr. Raymond Pace under 37 CFR 1.132 filed July 2, 2004 is insufficient to overcome the rejection of claims based upon the references applied under 35 USC 103 as set forth in the last Office action because there is no showing that the objective evidence of nonobviousness is commensurate in scope with the claims. Specifically, the Declaration refers to pressure sensitive label on liners as thin or thinner than 0.5 mils (0.0127 mm) while the claims are directed to associating a precut source of linerless labels to a liner sheet of thickness less than 0.032 mm (1.2 mils) thickness, a thickness more than twice as great as that of the Declaration. There is no nexus between the claimed invention of associating linerless label with liner of less than 1.2 mils thickness and the evidence

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of using a liner of 0.5 mils or less in thickness. The evidence with respect to liner thickness (less than 0.5 mils) is not commensurate with the claimed range of liner thickness (less than 0.032 mm or less than 1.2 mils) and is thus insufficient to overcome the rejections.

For the above reasons, it is believed that the rejections should be sustained.

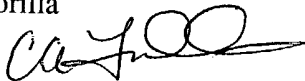
Respectfully submitted,

  
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MCM

November 6, 2004

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